

NATURAL BRIDGE TRACT F

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Introduction

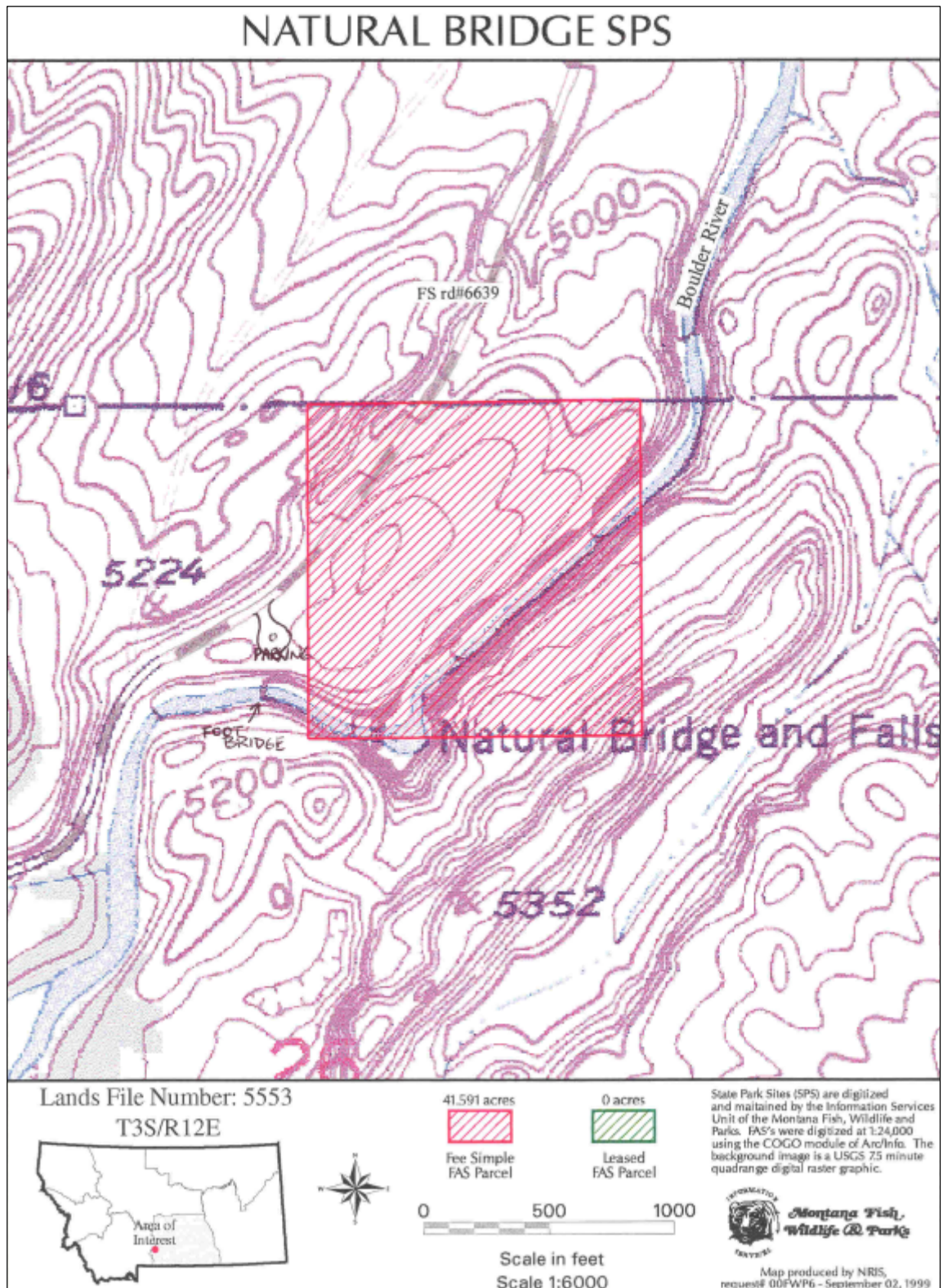
FWP has owned this site since 1965, soon after the parks division was transferred from the Department of Highways over to the Fish and Game Department. The site is famous for a limestone cave, and natural bridge, through which the Boulder River flowed, before the bridge fell in 1988. The water currently disappears under ground at the prior bridge location and reappears downstream of the drop that creates a beautiful falls during high water years. The Natural Bridge site is located within the Gallatin National Forest, and is accessed via a good graveled county road approximately 25 miles south of Big Timber. Five more miles south along the county road provides access to the Absaroka Wilderness Area and several trailheads. Natural Bridge is quite popular for area residents to picnic, sight-see and to tour with out-of-state friends and relatives; several movies were filmed in the area and weddings performed at the site.

This land exchange proposes to transfer title of this property to the FS to be administered as part of the Gallatin National Forest. The FS has numerous recreation sites up the Boulder River and a District Ranger Station in Big Timber. It would be practical to absorb the Natural Bridge tract in with the surrounding FS property since the agency has other management responsibilities in the same area. The Gallatin National Forest currently manages the site, with little physical or financial support from FWP. The nearest FWP park administrator is in the Billings Regional office, therefore, this recreation site does not get the supervision it needs from FWP to protect the resources and improvements in place.

The recreation site includes FWP and adjacent FS properties, but was jointly developed using primarily Land and Water Conservation Funds in 1978. The primary facilities are on FS property, including a gravel parking area, latrines and picnic tables, several interpretive signs, laminated foot bridge, and about 200 feet of nature trails. Existing features on the FWP property include fencing, approximately 1500 feet of nature trail, five interpretive signs, five interpretive overlooks to view the waterfall, pool below, and crevice above the falls. The trail is not designed to meet Americans for Disabilities Act guidelines, and public safety hazards exist on site due to 100 foot cliffs, according to Frank Cifala, Gallatin NF Resource Assistant in Big Timber. All improvements will be transferred to the FS in this exchange.

According to a letter from the FWP Region 5 Parks Manager, Ray Berntsen (now retired) to the Parks Division Administrator, dated February 19, 1998, FWP has done very little at the site, especially in the last five years. The potential for this tract to be transferred to the FS was brought up in 1987, and both parties were receptive to the idea and managed the site in anticipation of this happening since that time. The FS has included the site in their recreation plans for the Gallatin NF and the FS is completing all the maintenance needs. Most visitors are not aware of the dual ownership at the site.

MAP 8. Natural Bridge State Park



Note that FWP Lands records and this EA indicate 40 total acres for this tract; this digitized FWP map shows 41.591 acres.

Berntsen's recommendation to the Parks Division was to implement a long term (50-100 years) lease with the FS if a land transfer cannot be completed.

The FS does have an easement (in perpetuity at no charge) of about 1.79 acres from FWP to accommodate the main road (0.1 miles) that parallels the Boulder River, accesses the Absaroka Wilderness, and other FS recreation areas upstream.

Frank Cifala, Gallatin NF Resource Assistant in Big Timber, indicated that the FS has no immediate plans to further develop the site or change the use of the site, but there are plans for a major maintenance project to improve the trail to meet the Americans with Disabilities Act accessibility standards and possibly replace the interpretive panels. The FS has recently replaced the latrine and put in new picnic tables.

Property Description

The Natural Bridge tract is easily accessible via State Highway 298 and maintained gravel county road. The site is approximately 25 miles south of Big Timber.

Township 3 South, Range 12 East

Section 26, NW ¼ NE ¼

Sweet Grass County, Montana

Total acreage = 40 acres

The main fork of the Boulder River flows northeasterly through the eastern 1/3 of the parcel for a distance of about 3800 feet. The Boulder River is a tributary to the Yellowstone River. Frank Cifala characterizes the site (personal communication with Sue Dalbey, June 8, 2000) with steep rock cliffs that rise abruptly from the river's edge, creating a 100 feet deep canyon on much of the tract. The soil on the tract is dry and rocky, therefore the diversity and density of vegetation is limited. The rolling, openly forested tract includes limber pine, lodgepole pine, and Douglas fir.

ENVIRONMENTAL REVIEW

Physical Environment

Land Resources

(The following **minerals** information is from the Mineral Potential Report prepared for the Alberton Gorge Land Exchange and can be obtained from the U.S. Forest Service, Region 1 office in Missoula.)

The mineral estate on the Natural Bridge tract is owned by FWP and will be transferred to the FS if the Alberton Gorge Land Exchange is completed.

Geology, Mineralization and Mineral Activity

The Natural Bridge tract is located within the northern Beartooth Mountains, part of an uplifted, Laramide style, fault block mountain range that is underlain by Precambrian crystalline rocks. The Natural Bridge area is located along the northern flank of the

Beartooth range within Mesozoic age sedimentary rocks of the Madison Group through younger Cretaceous sedimentary rocks. The primary lithology of the Madison Group includes massive and layered limestones of Mission Canyon and Lodgepole formations. The parcel lies between two elongate east-west trending structures, the Mission Creek anticline and the Nye-Bowler Lineament or Stillwater Anticline on the southernmost edge of the Crazy Mountains Basin. These features are related to the uplift of the Beartooth range and have been explored for oil and gas (Walsh, M.H., 1957).

The Natural Bridge tract is underlain by limestones of the Madison Group, which occur as cliffs alongside the Boulder River. The tract straddles the Boulder River. The lands of this tract were acquired by the State of Montana in 1965. This tract was not a patented mining claim. There is no evidence of prospecting activity or mineralization on the parcel, with the exception of black sands found in the stream sediments, washed down from upstream sources.

Mineral Occurrence and Development Potential

The geology of the Natural Bridge tract is moderately favorable for the occurrence of oil and gas deposits and exploration wells have been drilled along the anticlinal structures that occur west and east of the parcel. Shows of oil and gas have been found in these wells, however, no large fields have been discovered. The nearest well to the parcel is approximately 6 miles northeast and was a dry hole (Walsh, M.H., 1957). The potential for development for oil and gas on the parcel is low due to its development as a recreation facility, its location straddling a major river, and its small size. The potential for occurrence of locatable and salable minerals is low due to the lack of favorable geology. The potential for their development is also low, for the reasons identified above regarding leasable mineral deposits.

The Boulder River flows over and through bedrock outcrops of the Madison Limestone Formation. The geologic formations at this site are what make it unique. The FS Resource Assistant, Frank Cifala, does not foresee any major development or management changes in the Natural Bridge area if the FS were to assume ownership of this 40 acre tract. In the future, the FS plans to reconstruct the existing trail to provide easier access, address visitor safety concerns, and comply with the Americans with Disabilities (personal communication with Sue Dalbey, June 8, 2000).

Changes in soil stability or geologic substructure are not anticipated. No impacts would occur to unique geologic or physical features of the area. Slight changes may occur in the future that would result in soil disruption, displacement, erosion, compaction or over-covering, which could reduce productivity or fertility. This would include maintenance to the area in an attempt to bring the trails up to ADA standards.

Man-made changes are not likely to occur which would alter the siltation, deposition or erosion patterns that could modify the channel of the Boulder River or bed. The canyon walls are highly weathered and jointed which cause portions of the walls to naturally break loose and drop into the river bed below. The public would not encounter any new

risk of exposure to earthquakes, landslides, or ground failures. Developed trails do not lead into the canyon, but allow visitors to view the formations from above.

Air

Use of the Natural Bridge tract will not change because of ownership by FS. Air pollutants and ambient air quality should not increase as a result of the change in ownership. Objectionable odors, changes in air moisture, temperature patterns, local or regional climate are not anticipated. No actions are foreseen that would conflict with federal or state air quality regulations.

Water and Flood Plains

The FS intends to manage the site as they have the last ten years. No negative impacts to surface water and ground water quality or quantities will occur due to the change in ownership. No alterations are expected to the water temperature, dissolved oxygen, or turbidity. Amount of surface water, drainage patterns and rates of surface runoff and the magnitude of flood waters are expected to remain uninhibited. Risks for contamination of surface water and groundwater should remain the same.

The change of ownership will not affect other water users, or existing water rights or reservations, of which none are known. No discharges are predicted that would affect federal or state water quality regulations.

No sources are known to impact the water quality, though the closest water monitoring station is approximately 3.5 miles upstream from the tract (*Watershed/Floodplains Resource Report*, EA Engineering, Science, and Technology, November, 1992.). Frank Cifala estimates that about 90 percent of the upstream watershed is located within the Absaroka-Beartooth Mountain Wilderness Area.

The Natural Bridge tract includes vertical rock canyon walls along the Boulder River throughout the state parcel. The DNRC has not identified designated flood hazards or **flood plains** on the Natural Bridge tract, according to Karl Christians, DNRC, Flood Plain Management Section Supervisor (Federal Insurance Administration, Flood Hazard Boundary Map review with Sue Dalbey, June 13, 2000). Gallatin National Forest Hydrologist Mark Story confirmed this analysis to Bo Stuart, Helena National Forest Hydrologist (Flood Plain & Wetland Evaluation, January 10, 2001).

Vegetation, Wetlands, Prime & Unique Farmlands

The vegetation in this area is characterized by limber pine, lodgepole pine and douglas fir forest. The diversity and density of the vegetation is limited by the steep, dry rocky conditions. Approximately 35 acres of the tract are rolling and open, with scattered timber, as estimated by Frank Cifala, Gallatin NF Resource Assistant in Big Timber (personal communication with Sue Dalbey, June 8, 2000). Timber volumes and old growth potential were not determined since this resource will be protected under the individual Forest Plans and federal protection law.

FS has management goals and practices similar to FWP. Activities are not anticipated that would affect the diversity, productivity or abundance of a plant species or plant

community. Noxious weeds are not actively controlled by FWP on this remote tract. Vehicles cross the FWP parcel only at the northwest corner, thus limiting the spread of noxious weeds. Frank Cifala reports (personal communication with Sue Dalbey, June 8, 2000) that there are over a dozen patches of leafy spurge on both sides of the river. FS will incorporate the site under their weed management program for the Gallatin National Forest.

The federally listed (threatened) plants and their critical habitat will not be affected by this project. Water Howellia (*Howellia aquatilis*) is specifically found west of the Continental Divide. Ute Ladies'-tresses (*Spiranthes diluvialis*) is in river meander wetlands primarily found in Jefferson County. A records search by the Montana Natural Heritage Program revealed no vegetative species of special concern or threatened or endangered species. Spalding's Catchfly (*Silene spaldingii*) is under the threatened status; however, this species is found in the Tobacco Valley and the Upper Flathead River drainage (U.S. Fish & Wildlife Service Threatened and Endangered Species – Montana, web site; www.r6.fws.gov/mt4.html; May 23, 2000). The US Fish and Wildlife Service has also identified the slender moonwort (*Bortrychium lineare*) as a Candidate species; however, it has not been found in Sweet Grass County. It is found in meadows in conifer forests within Glacier and Lake Counties, far northeast of the Natural Bridge tract (US Department of the Interior, Fish and Wildlife Service, Threatened, Endangered and Candidate Species in Montana, Endangered Species Act. December 2002). These species has not been recorded on the Natural Bridge tract and will not be impacted by the proposed exchange.

Natural Bridge does not contain jurisdictional **wetlands**, according to Frank Cifala, Gallatin National Forest Resource Assistant in Big Timber, based on personal knowledge of the site. The Boulder River lies within vertical rock canyon walls for the entire length of the state property, with little or no soil or vegetation along the river (personal communication with Sue Dalbey, June 8, 2000). Gallatin National Forest Hydrologist Mark Story confirmed this analysis to Bo Stuart, Helena National Forest Hydrologist. Story also noted to Stuart that this tract does contain 0.57 acres of riverine wetland as classified by Cowardine (Flood Plain & Wetland Evaluation, January 10, 2001).

This site is openly timbered with no agricultural land present, therefore FWP projects that no **prime and unique farmland** will be impacted by the proposed land exchange.

Fish & Wildlife

Transfer of ownership to the FS will not likely affect critical habitat or the diversity and abundance of fish, wildlife and non-game species in the area.

FWP Fisheries Biologist based in Columbus, MT, Mike Poore, states that his crew samples the Boulder River up and downstream of Natural Bridge. The falls is a natural barrier to fish coming up from the Yellowstone River. The mile-long sampling section is about 6 miles below the falls and typically contains 1200-1700 trout per mile. Brown trout make up about 80% of the total trout, and 20% are rainbow trout. The mountain whitefish population is strong.

The upstream sample section on the Boulder River is about 1½ miles from Natural Bridge and reveals a high population of rainbow trout. Electroshocking sampling methods have uncovered 273 rainbows/mile over 13 inches long during the spring spawning periods. Fall snorkeling is probably a more accurate overall method of determining the area fish population, which yielded 145 fish (over 13 inches) per mile in 1995. This may be more illustrative of the fish population upstream and near the Natural Bridge, according to Poore. Brook trout are found above the falls and upstream; some yellowstone cutthroat occur closer to the headwaters.

Mr. Poore felt that the land transfer to FS would not negatively impact angler access or the fish populations in the Boulder River. No species of special concern, or threatened or endangered fish species occur in this section of the river. Bull trout and white sturgeon do not inhabit waters east of the Continental Divide. The pallid sturgeon do not inhabit the Boulder River drainage. The sturgeon chub and sicklefin chub are Candidates for Listing under the Endangered Species Act, but are found in the Yellowstone River farther east in Montana, not in this section of the Boulder River. The arctic grayling is not found in this area.

The Absaroka-Beartooth Wilderness boundary is only five miles south of the Natural Bridge tract. Human activity is not expected to increase in the area due to the transfer of ownership, thus wildlife populations will not likely be additionally stressed. FWP wildlife Biologist, Claire Simmons does not expect the proposed land trade to negatively impact wildlife in the area. The FWP tract is not specifically important as winter range, however the surrounding area is used by whitetail deer, mule deer, elk, and black bear. Gray wolves likely drift through the area and lynx are present in the upper Boulder drainage, therefore may also use this lower area from time to time. Peregrine falcons are known to use the area and the FS tried to develop a hack site in the mid-1990s. Simmons noted that bald eagles are primarily found lower on the Boulder, however he has seen the eagles farther south than Natural Bridge in the winter, utilizing road kill and in search of other winter food. There are no nesting sites nearby.

The following animals are federally listed under the Endangered Species Act (US Department of the Interior, Fish and Wildlife Service, Threatened, Endangered and Candidate Species in Montana, Endangered Species Act. December 2002.) and were considered in this environmental assessment. The tract may not hold habitat for some species, and therefore will not be specifically discussed.

- Endangered - black-footed ferret, gray wolf, whooping crane, least tern, pallid sturgeon, white sturgeon (Kootenai River population);

- Threatened - grizzly bear, bald eagle, piping plover, bull trout (Columbia River basin and St. Mary-Belly River populations), Canada lynx (contiguous U.S. population);

- Proposed Threatened - mountain plover;

- Candidates for listing as threatened or endangered - Arctic grayling (fluvial population), warm spring zaitzevian riffle beetle, black-tailed prairie dog, yellow-billed cuckoo (western population);

Proposed Critical Habitat – bull trout (Columbia River basin and St. Mary-Belly River populations: streams, lakes and reservoirs in the Clark Fork, Flathead and Kootenai river basins).

EA Engineering, Science and Technology prepared the *Threatened/Endangered Species Resource Report* in November, 1992 for the FS, which revealed the following occurrences of threatened or endangered species near the Natural Bridge tract. The site has habitat that could support the endangered Gray wolf, however no sightings have been recorded on the site. The USFWS indicates that the endangered peregrine falcon and bald eagle have the potential to use this area because the tract is within their range during spring and fall migration. Peregrine falcons are known to use the area. Grizzly bears (threatened) have the potential to use the area due to the available habitat, but there is no documentation indicating their current use. Osprey have also been seen near the tract.

A search for threatened and endangered species by the Montana Natural Heritage Program (Natural Resource Information System, August 1999) revealed that the immediate vicinity was originally mapped as a historic peregrine falcon eyrie with a high potential for re-occupancy. A hack box is located near the land tract.

The search by NRIS also identified the *discus shimeki*, or striate disc, present on the limestone canyon walls in the area. This species is globally apparently secure, however in Montana, it is critically imperiled because of extreme rarity. Access into the canyon is difficult due to the steep canyon walls, and use of the site will not change, therefore impacts are unlikely to this specie.

Frank Cifala, discussed with Sue Dalbey (personal communication August 12, 1999) that management practices of the Natural Bridge tract will likely remain as it has in the last 10 years, if the FS acquires title to the property. Given this information, Biologist Claire Simmons does not expect the proposed transfer of Natural Bridge to the FS, to negatively impact any species listed under the federal Threatened and Endangered Species Act, Candidate species, their designated critical habitat, or other wildlife found near the tract.

Human Environment

Noise & Electrical Effects

Noise levels are not expected to increase with the completion of the land exchange. No known changes to electrostatic or electromagnetic conditions are predicted. The remote locale of this tract should not affect radio or television reception.

Land Use

The productivity and profitability of the Natural Bridge tract should not be affected if ownership transfers to FS. The transfer corresponds with current natural and recreation area designations in the Gallatin National Forest. Current ownership by FWP poses an inconsistency of a small portion of state land in the middle of NFS land. Most visitors

believe the entire site is owned by the FS. The proposed action will have little effect on private residences upstream and downstream, as it will remain as a public access.

Risk & Health Hazards

This property would be absorbed into the Gallatin National Forest Plan under Management Area 1, which includes all developed campgrounds, picnic areas and potentially developed sites. It will be added to any existing emergency response plan the Forest may have in place, including wild fire responses. Chemical toxicants which may be used would likely be for the sanitation of latrines and control of noxious weeds. This would be considered to have a positive impact on the environment, when used prudently as required by law.

On June 6, 2000, Frank Cifala, Recreation Assistant on the Gallatin NF, inspected the site for possible existing **hazardous materials**. He noted an abandoned road bed exists near the existing county road, and fill dirt may have been brought onto the property for road construction. Paved and native surface interpretive trails are located on the property. A cold mix substance was used to pave the interpretive trail, however there is no evidence of misuse. No other evidence of potential use of hazardous materials was apparent at the site.

Community Impact

Approximately two miles upstream from Natural Bridge is a large guest ranch who emphasizes fishing for their clients. Property downstream from the tract is privately owned. It is unlikely that visitation will significantly increase due to the change in ownership. The FS actively manages the site, and Natural Bridge is listed on the 1999 Gallatin National Forest Visitor Map under their lists of “Forest Service Campgrounds and Picnic Sites” and “Other Public Campground and Picnic Areas.” The social structure and employment opportunities are not expected to change, nor will industrial and commercial activity. Traffic patterns will remain unaltered.

Taxes

A slight increase in county taxes may occur, since FWP had declared this tract a State Park, which is exempt from payments in lieu of taxes. FS payments in lieu of taxes (PILT) and payments from their 25% Fund will be applicable on this 40 acre tract. A rough estimate of \$29.98 and \$3.20 respectively would be paid by the FS from the PILT and 25% Funds. This would result in an estimated total of approximately \$33 new revenue paid to Sweet Grass County.

Public Services, Utilities

No net increase in administrative will be required at this site if the land exchange is completed. The FS has undertaken all management costs for personnel and materials to maintain the site for the last several years, therefore overall management at the site will not change. Future enhancements, such as new interpretive panels (estimated cost of \$10,000) and reconstruction of the trail to address accessibility and visitor safety concerns, will require additional funding. The Gallatin NF currently maintains the road that crosses the corner of this tract, so costs will not change for access. If the FS

improves the existing site facilities in the future for added safety and access for people with disabilities, there will be initial capital expenses and additional maintenance costs associated.

Records reviewed by Doug Habermann, Billings area FWP Parks Manager, stated that no revenue is collected at this site, and maintenance funds are not currently appropriated to the site. This property has been on the state's list of disposal properties since 1987, therefore no resources have been appropriated for management of the site.

According to a letter from the FWP Region 5 Parks Manager, Ray Berntsen (now retired) to the Parks Division Administrator, dated February 19, 1998, it would cost FWP a minimum of \$3,500 annually for maintenance and staff "to take back the site totally."

Natural Bridge includes a current easement of approximately 0.1 **road** miles to the U.S. If Natural Bridge is transferred to the U.S., there will be no net access acquired by the U.S. No other roads exist on the tract.

Aesthetics & Recreation

The transfer of this tract to another public entity will preserve the scenic vistas and aesthetically desirable sites along the Boulder River. This exchange will ensure continuing quality opportunities for recreation and tourism. The nearby Absaroka-Beartooth Wilderness will not be negatively impacted by the continued public access at Natural Bridge.

If the property were sold to a private individual for residential or commercial development, recreational and aesthetic values for this unique area would decline significantly. Development of the site would impact wildlife habitat, and therefore viewing opportunities. Scenic viewsheds would also be impacted if the surrounding area was developed by a private entity.

Cultural & Historical Resources

The *Cultural Resources Inventory Report* by Historical Research Associates, Inc. dated September, 1992, indicates that no cultural resource properties were found within this exchange parcel. One previously recorded prehistoric property is located in the vicinity, but does not extend into the inventory parcel.

Evaluation of Mitigation or other Control Measures

The FS has no plans to alter the type of use at this site nor expand it to include camping facilities. The federal agency does plan to complete a major maintenance project to make facilities safe, repair/replace worn facilities, and allow a higher degree of accessibility.

As with the other tracts in the proposed land exchange, this is a necessary part of the exchange to help equalize values.